

STEPHEN P. TEALE DATA CENTER

NT SERVICE OFFERINGS

MARCH 1999

BACKGROUND

The Teale Data Center operates a number of Microsoft NT-based systems to meet the applications support requirements of its customers and is recognized as *The Center of Excellence* for providing NT services. Technical staff are highly trained with Microsoft BackOffice products and desktop support, as well as certified in Microsoft's MCSE program.

Servers installed at Teale include hardware, operating system, software, network connectivity, systems operations and resource management while maintaining the highest level of systems availability and reliability.

Teale does not provide support for the applications running on the servers, or for any application development tools or application software operating on any connected customer systems. Teale does not provide space on its floor for client-owned machines for which Teale does not assume operation system and database software responsibility.

SERVICES OFFERED

Software Support

NT, Back Office Products, Exchange, Structured Query Language Server (SQL Server), SNA Server, Systems Management Server (SMS) installed are monitored to ensure that all processes are running and that databases are backed up, as required.

Administration

Support will be provided by Teale to administer server accounts, services, scheduled reboots, etc.

Performance

Servers will be monitored to ensure that all system processes and hardware are performing at their optimal capacity. Hardware and software recommendations will be made in the event that the server is experiencing degradation. Hardware and software problems will be resolved through the Help Desk process.

Software/Hardware Maintenance

Fix packs and hot fixes will be applied, as needed, to ensure that all software is running at levels that are currently supported by the vendor. Any changes to the software/hardware will be documented through the Service Request and/or Change Request processes.

Backups

Backups will be scheduled and monitored on the servers on a daily basis using the Adstar Distributed Storage Manager (ADSM) to allow recovery of files/server in the event that a restore is needed. ADSM storage is included in the monthly NT rate.

Network Connectivity

Teale provides full network design, implementation, network management and network administration services to its customers.

MULTIPLE CLIENTS SHARING NT SERVICES VS. DEDICATED NT SERVERS

The Teale Data Center encourages multiple clients sharing NT Servers. The following addresses which services may be shared, to what capacity, and any issues concerning shared vs. dedicated services. The customer department should determine its needs based on the application requirements.

The primary concern of the Data Center is to maintain consistent levels of software releases. When multiple clients share a single NT Server, they also share its services at a specific software release. If multiple clients are sharing an application, such as SQL Server, Customer A could be insistent that Teale upgrade the product to the next version while Customer B indicates that they are not ready. It will be Teale's responsibility to maintain current and consistent levels of software and hardware on dedicated and shared systems.

The following should be considered to determine if NT services should be shared or dedicated:

Domain Controllers

If a client has a domain controller at Teale, other clients cannot share it unless they agree that it is acceptable for their user accounts to exist in the same domain. In general, these servers should be kept separate.

File and Print Servers

This would be an ideal situation for sharing services. Teale could host several customer departments on a single fault-tolerant file and print server. The appropriate trusts would need to be arranged between the various customer domains and domain of the server to ensure file security and integrity. This would not be acceptable for customers that object to their data being on the same system as others if there are security concerns.

SQL Server

Multiple customers could share SQL Servers. Teale would be responsible for maintaining current and consistent levels of software/hardware releases. The number of users a machine can support is a function of the hardware.

Exchange Server

Multiple customers could not share Exchange Servers unless they agree to be part of the same Exchange Domain. This means that Customer A could see all of Customer B's users in the global address list. This may be acceptable to some, but not to others. If Teale could model

Exchange after OV/VM – and the customers approve – then Exchange could become a candidate for shared services.

SNA Server

If SNA Server is part of a mainframe data access method specific to Netscape, for example, it probably cannot be shared. If multiple customers require terminal and print functionality, SNA Server probably can be shared.

The discussion above addresses the primary NT Server and BackOffice components supported by Teale. The decision to support customers on dedicated NT Servers vs. shared NT depends on the application and the individual customer department requirements and should be evaluated on a case-by-case basis.

NT BILLING METHODOLOGY

The Data Center recovers its costs for these basic services through monthly flat rates for shared NT services and for dedicated NT services. The rate is subject to change as the cost to provide services changes. A customer's monthly bill will change as additional resources are requested and provided. Network costs are specific to the customer and are not included in the NT monthly rate.

For servers installed and supported at department sites, customers will be charged the current consulting rates.

Services not included in the monthly rate for which the Data Center will continue to charge consulting rates are as follows:

- Initial installation and set-up of the application on the NT servers will be assessed an extra charge for actual hours required at the current published consulting hourly rate.
- An additional consulting charge will also be assessed for hardware/software modifications required that are unique to the customers' applications or in excess of the standard server configuration or service offering. This charge will also be based on the current published consulting hourly rate.

STEPHEN P. TEALE DATA CENTER

INTERNET/INTRANET SUPPORT OFFERINGS

MARCH 1999

BACKGROUND

The Teale Data Center provides a variety of Internet, Intranet and Extranet services, including traditional web hosting, web application hosting, web page design and development and web application design and programming. The Data Center also supports the network infrastructure required to facilitate applications available over the Internet, including Domain Name Services (DNS), Directory Services, and, in the future, Certificate Services. Included are hardware, operating system software, application server software, web software, network connectivity, system operations and resource management. These services are provided for systems owned and operated by the Data Center that reside at Teale.

SERVICES OFFERED

Operating System Support

Teale provides software licensing and vendor contract administration for all operating system software, as well as software version upgrades, the application of maintenance, end-user support and system administration services. Problem identification, resolution and recovery are included. Teale currently provides operating system support for Sun/Solaris and for Microsoft Windows NT. (See the UNIX or NT Support Offerings.)

Web Page Hosting

The Data Center currently provides Web Page hosting in an environment supported by Netscape Enterprise Server, which supports Secure Sockets Layer (SSL) transactions.

Web Application Hosting

In the UNIX operating system, Teale supports applications written using Netscape Application Server and the Cold Fusion Application Server. In the Windows NT operating system environment, applications are supported using the Cold Fusion Application Engine and the Microsoft Transaction Server.

Resource Management

Teale monitors the utilization level for all system resources. When system use levels approach predetermined limits, the Data Center will provide additional resources to maintain application performance and allow for customer growth or will relocate the server to a platform that better suits the customer's requirements.

Network Connectivity

The Data Center provides full network design, implementation, network management and network administration services to its clients. Network costs are specific to the customer and not

included in the Internet/Intranet monthly rate. Network costs are billed according to the published Teale Billing Rates Schedule.

INTERNET/INTRANET BILLING METHODOLOGY

Basic web service rates are detailed in the Teale Billing Rates Schedule. The basic service includes Microsoft IIS (Internet Information Service), Netscape Enterprise Server, and Apache Web Software or Stronghold (Secure Apache Web Software). Web application transactions using Cold Fusion Application Engine (Windows NT and UNIX versions), Microsoft Transaction Server or Netscape Application Server will be charged based on a transaction rate for this group of software services.

STEPHEN P. TEALE DATA CENTER

UNIX SERVICE OFFERINGS **MARCH 1999**

BACKGROUND

The Teale Data Center operates several UNIX-based systems to meet the applications support requirements of its customers. The services include providing hardware, operating system software, Oracle and Sybase database software, network connectivity, system operations and resource management. These services are provided for systems owned and operated by the Data Center that reside at Teale.

Teale does not provide support for application software that runs on the servers; or for application development tools or application software that runs on any connected client systems. In addition, the Data Center does not provide support for UNIX systems that do not reside on its computer room floor. Teale does not provide space on its floor for client-owned machines for which Teale does not assume operating system and database software responsibility.

SERVICES OFFERED

Operating System Support

Teale provides software licensing and vendor contract administration for all operating system (OS) software, as well as software version upgrades, the application of OS maintenance, end user support, and system administration services. Problem identification, resolution and recovery are included. Teale currently provides Operating System support for SUN/Solaris and for Hewlett Packard/HPUX Systems.

Database Support

The Data Center currently provides support for both Oracle and SYBASE database products; and provides all contract administration and licensing for database software that runs on its systems. Regular support services include version upgrades, the application of maintenance, end user support and database administration down to the table space level. Database backups are taken on regular intervals and off-site storage services are available.

Teale neither contracts for nor supports database-related products such as application development tools and GUI front-end software that runs on remote client systems. Further, Teale does not support application software that runs on attached clients.

The Data Center currently offers database support for Oracle on the SUN/Solaris platforms and for SYBASE on the Hewlett Packard systems. Teale is presently considering offering the DB2 database as a rated service on its UNIX systems.

Resource Management

Teale monitors the utilization level for all system resources. When system use levels approach predetermined limits, the Data Center will provide additional resources to maintain application performance and allow for customer growth or will relocate the server to a platform that better suits the customer's requirements.

Network Connectivity

The Data Center provides full network design, implementation, network management and network administration services to its clients. Network costs are specific to the customer and not included in the UNIX monthly rate. Network costs are billed according to the published Teale Billing Rates Schedule.

UNIX BILLING METHODOLOGY

Teale recovers its costs for services through a rate schedule that is based primarily upon three components: CPU resources used; the amount of disk space used (measured in gigabytes); and the level of database access required which is represented by the number of users who will be concurrently accessing the data. A rate is applied to the CPU, disk and database access components of the model. The UNIX rate schedule is based on a base CPU configured as a 335 MHz Processor with 512 megabytes of memory. Rates are subject to change as the cost to provide services changes. A customer's monthly bill will change as additional resources are requested and provided.

Rates for estimating the cost of each environment are shown on the attached rate sheet. The following is an explanation of how the rate structure is applied to shared or standalone environments:

- Resources may be requested in either shared or standalone environments.
- A premium is charged for standalone machines because excess resources are not available for use by another client.
- Single processor machines are not offered for shared usage.
- Requests for shared resources may use fractional parts of the quoted full CPU rates if the application does not require a full processor.
- Costs for standalone requests must use an integral multiple of the full CPU rate.

Network costs are specific to the customer and are not included in the UNIX rate structure.